



RAILROAD COMMISSION OF TEXAS

Form W-2

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 02/02/2018
Tracking No.: 178249

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: ZARVONA ENERGY LLC Operator No.: 950523
Operator Address: 1010 LAMAR ST SUITE 500 HOUSTON, TX 77002-6334

WELL INFORMATION

API No.: 42-003-47556 County: ANDREWS
Well No.: 6 RRC District No.: 08
Lease Name: ULS 5-9 UNIT Field Name: EMMA (MISSISSIPPIAN)
RRC Lease No.: 49290 Field No.: 28899581
Location: Section: 4, Block: 5, Survey: UL, Abstract: U108
Latitude: 32.494184 Longitude: -102.366169
This well is located 16 miles in a NORTH EAST
direction from ANDREW,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing Completion or Recompletion Date: 08/13/2017
Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 07/11/2017 826299
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 06/30/2017 Date of first production after rig released: 08/13/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 06/30/2017 Date plug back, deepening, recompletion, or drilling operation ended: 08/13/2017
Number of producing wells on this lease in this field (reservoir) including this well: 1 Distance to nearest well in lease & reservoir (ft.): 0.0
Total number of acres in lease: 640.00 Elevation (ft.): 3030 GL
Total depth TVD (ft.): 12830 Total depth MD (ft.):
Plug back depth TVD (ft.): 12830 Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? Yes Rotation time within surface casing (hours): 24.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries Off Lease : No
of lease on which this well is located: 467.0 Feet from the South Line and
467.0 Feet from the East Line of the
ULS 5-9 UNIT Lease.

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir Gas ID or Oil Lease No. Well No. Prior Service Type

PACKET: N/A

W2: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination **Depth (ft.):** 1725.0 **Date:** 05/17/2017
SWR 13 Exception **Depth (ft.):**

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: 08/17/2017 **Production method:** Pumping
Number of hours tested: 24 **Choke size:** 18
Was swab used during this test? No **Oil produced prior to test:**

PRODUCTION DURING TEST PERIOD:

Oil (BBLs): 56.00 **Gas (MCF):** 38
Gas - Oil Ratio: 678 **Flowing Tubing Pressure:** 200.00
Water (BBLs): 156

CALCULATED 24-HOUR RATE

Oil (BBLs): 56.0 **Gas (MCF):** 38
Oil Gravity - API - 60.: 40.7 **Casing Pressure:** 0.00
Water (BBLs): 156

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1844			POZ & PREM C	1950	3239.0	SURFACE	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	5428			C	1434	3220.0	0	Calculation
3	Conventional Production	7	8 3/4	12826			CLASS C & H	1045	1686.0	5463	Calculation
4	Conventional Production	7	8 3/4	12826	5463		CLASS C	395	856.0	0	Circulated to Surface

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
N/A									

TUBING RECORD

Row	Size (in.)	Depth (ft.)	Packer Depth (ft.)/Type
1	2 7/8	12298	/

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L 12170	12216.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? No

Is well equipped with a downhole actuation sleeve? Yes If yes, actuation pressure (PSIG): 900.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 8000 Actual maximum pressure (PSIG) during hydraulic fracturing: 7900

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? No

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Acid	15% HCL 116 BBLs	12170	12216

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
YATES	Yes	3026.0		Yes	
SEVEN RIVERS	Yes	3301.0		Yes	
QUEEN	Yes	4127.0		Yes	
GRAYBURG	Yes	4521.0		Yes	
SAN ANDRES - CO2 FLOOD, HIGH FLOWS, H2S, CORROSIVE	Yes	5045.0		Yes	
HOLT	No			No	PINCHED
GLORIETA	Yes	5545.0		Yes	
TUBB	No			No	PINCHED
CLEARFORK	Yes	6723.0		Yes	
PERMIAN DETRITAL	No			No	PINCHED
LEON	No			No	PINCHED
WICHITA ALBANY	No			No	PINCHED
SPRABERRY	Yes	7292.0		Yes	
DEAN	Yes	8142.0		Yes	
WOLFCAMP	No			No	PINCHED
CANYON	No			No	PINCHED
PENNSYLVANIAN	Yes	8999.0		Yes	
MISSISSIPPIAN	Yes	10677.0		Yes	
MCKEE	No			No	PINCHED
STRAWN	No			No	PINCHED
FUSSELMAN	No			No	PINCHED
DEVONIAN	No			No	PINCHED
SILURIAN	No			No	PINCHED
ELLENBURGER	No			No	PINCHED

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

NEW WELL.

RRC REMARKS

PUBLIC COMMENTS:

CASING RECORD :

TUBING RECORD:

THERE IS NO PACKER, IT IS A TUBING UNIT, TAC @12077.

PRODUCING/INJECTION/DISPOSAL INTERVAL :

PERF 12,1270,12,180 AND 12,216

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION

Printed Name: Alvaro Rosales

Title: Regulatory Manager

Telephone No.: (713) 600-0600

Date Certified: 02/01/2018



RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

CEMENTING REPORT

OPERATOR INFORMATION
Operator Name: Zarvona Energy
Operator P-5 No.: 950523
Cementer Name: B.J Services
Cementer P 5 NO:14442

WELL INFORMATION
District No.: 8
County: Andrew
Well No.: #6
API No.: 42-003-47556
Lease Name: ULS 5-9 Unit
Lease No.:
Field Name: EMMA (Mississippian)
Field No.: 28879581

I. CASING CEMENTING DATA
Type of casing: [] Conductor [x] Surface [] Intermediate [] Liner [] Production
Drilled hole size (in.): 17 1/2
Depth of drilled hole (ft.): 1844
Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 13 3/8
Casing weight (lbs/ft) and grade: 54.5# J-55
No. of centralizers used: 15
Was cement circulated to ground surface (or bottom of cellar) outside casing? [x] YES [] NO
Setting depth shoe (ft.): 1844
Top of liner (ft.):
Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:
Calculated top of cement (ft.): Surface
Cementing date: 7/2/2017

SLURRY table with columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

II. CASING CEMENTING DATA
Type of casing: [] Surface [] Intermediate [] Production [] Tapered production [] Multi-stage cement shoe [] Multiple parallel strings
Drilled hole size (in.):
Depth of drilled hole (ft.):
Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):
Casing weight (lbs/ft) and grade:
No. of centralizers used:
Tapered string drilled hole size (in.):
Tapered string drilled hole size (in.):
Tapered string casing weight (lbs/ft) and grade:
Tapered string no. of centralizers used:
Was cement circulated to ground surface (or bottom of cellar) outside casing? [] YES [] NO
Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:
Calculated top of cement (ft.):
Cementing date: 10/18/2016

SLURRY table with columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

III. CASING CEMENTING DATA
Type of casing: [] Surface [] Intermediate [] Production [] Tapered production [] Multi-stage cement/DV tool [] Multiple parallel strings
Drilled hole size (in.):
Depth of drilled hole (ft.):
Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):
Casing weight (lbs/ft) and grade:
No. of centralizers used:
Tapered string drilled hole size (in.):
Tapered string depth of drilled hole (ft.):
Upper: Lower:
Upper: Lower:
Tapered string size of casing in O.D. (in.):
Tapered string casing weight (lbs/ft) and grade:
Tapered string no. of centralizers used:
Upper: Lower:
Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? [] YES [] NO
Setting depth tool (ft.):
Hrs. waiting on cement before drill-out:
Calculated top of cement (ft.):
Cementing date: 10/18/2016

SLURRY table with columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

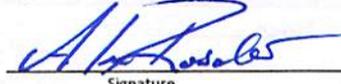
REMARKS

Remarks-1 Class C 47#/sk+POZ 37#/sk+Bentonite 4%+SMS 0,2%+Static free .005#/sk+Sodium chloride 5%+ water 92%-Remarks-2 Premium Plus C 94#/sk+Static Free .005#/sk+R-3 1%+water 56%. Circulated cement to surface 144 bbl 459 sks

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Sevice Supervisor Rene martinez Name and title of cementer's representative	BJ seviles Cementing Company	 Signature
11211 FM 2920 RD Address	Tomball, Texas 77375 City, State, Zip Code	(281) 408-2361 Tel: Area Code Number
		Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

Alex Rosales Typed or printed name of operator's representative	EHS, Reg Manager Title	 Signature
1010 Lemar St. Address	Houston, TX 77002 City, State, Zip Code	(713) 600-5702 Tel: Area Code Number
		8-18-2017 Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- A. What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. How to file:** An oil and gas completion report and form W-15 may be filed online using the Commissioner's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).
- C. Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- D. Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- E. Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.
- F. Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple form W-15s to show all data for multiple parallel strings.
- G. Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



RAILROAD COMMISSION OF TEXAS

Form W-15

1701 N. Congress

Rev. 08/2014

P.O. Box 12967

Austin, Texas 78701-2967

Cementor: Fill in shaded areas.

Operator: Fill in other items.

CEMENTING REPORT

OPERATOR INFORMATION

Operator Name: ZARVONA ENERGY LLC	Operator P-5 No.: 950523
Cementor Name: BJ SERVICES, LLC	Cementor P-5 No.: 403101

WELL INFORMATION

District No.: 8	County: ANDREWS	
Well No.: 6	API No.: 42003475560000	Drilling Permit No.: 826299
Lease Name: ULS 5-9 UNIT	Lease No.:	
Field Name: Emma (Mississippian)	Field No.: 28899581	

I. CASING CEMENTING DATA

Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production		
Drilled hole size (in.): 12.25	Depth of drilled hole (ft.): 5,435	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 9.625	Casing weight (lbs/ft) and grade: 40#, J55&Hcl 85	No. of centralizers used: 43
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 5,428	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 0	Cementing date: 07/07/2017

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1,172	C	SEE REMARK #1	2,873	9,173
2	262	C	SEE REMARK #2	347	1,107
3					
Total	1,434			3,220	10,280

II. CASING CEMENTING DATA

Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings		
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight (lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> Multiple parallel strings		
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight (lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth tool (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

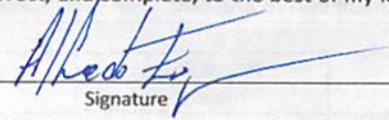
REMARKS

REMARK #1: C50/50POZ+ 10% BENTONITE+ 0.5% FL-52+ 0.1% R-3+ 0.2% SMS+ 5% SALT+ 0.005 GAL/SK FP-6L+ 0.005 LB/SK STATIC FREE. REMARK #2: C+ 0.3% R-3+ 0.005 GAL/SK FP-6L+ 0.005 LB/SK STATIC FREE.

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

JESUS ALFREDO ESPARZA

BJ SERVICES, LLC



Name and title of cementer's representative

Cementing Company

Signature

11211 FM 2920 RD.

TOMBALL, TX 77375 (281) 408-2361

07/07/2017

Address

City, State, Zip Code

Tel: Area Code

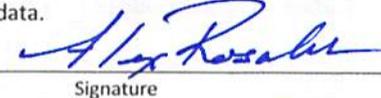
Number

Date: mo. day yr.

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Alex Rosales

EHS, Rig Manager



Typed or printed name of operator's representative

Title

Signature

1010 Loman St.

Houston, TX 77002

(713) 600-5402

8-18-2017

Address

City, State, Zip Code

Tel: Area Code

Number

Date: mo. day yr.

Instructions for Form W-15, Cementing Report

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- C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.
- G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



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CEMENTING REPORT

Form W-15

Rev. 08/2014

Cementer: Fill in shaded areas.

Operator: Fill in other items.

OPERATOR INFORMATION

Operator Name:	Zarvan Energy LLC	Operator P-5 No.:	950523
Cementer Name:	BJ SERVICES, LLC	Cementer P-5 No.:	403101

WELL INFORMATION

District No.:	8	County:	Andrews
Well No.:	6	API No.:	42-003-47556
Lease Name:	ULS 5-9 Unit	Drilling Permit No.:	826299
Field Name:		Lease No.:	
		Field No.:	28899581

I. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Setting depth shoe (ft.):	Top of liner (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Setting depth liner (ft.):	
SLURRY					

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

II. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input checked="" type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input checked="" type="checkbox"/> Multi-stage cement shoe	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):	8.75	Depth of drilled hole (ft.):	12826	Est. % wash-out or hole enlargement:	20%	
Size of casing in O.D. (in.):	7	Casing weight (lbs/ft) and grade:	29	No. of centralizers used:	50	
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Setting depth tool (ft.):	5463		
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):	5463	Cementing date:	20-Jul-17	
SLURRY						

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	374	CLASS C	Remarks	918.5	6106
2	671	CLASS H	Remarks	768.3	5108
3					
Total	1045			1686.8	11214

III. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input checked="" type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input checked="" type="checkbox"/> Multi-stage cement/DV tool	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):	8.75	Depth of drilled hole (ft.):	12826	Est. % wash-out or hole enlargement:	20%	
Size of casing in O.D. (in.):	7	Casing weight (lbs/ft) and grade:	29	No. of centralizers used:	50	
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Setting depth tool (ft.):	5463		
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):	Surface	Cementing date:	20-Jul-17	
SLURRY						

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	295	CLASS C	Remarks	723.3	4809
2	100	CLASS C	Remarks	133.0	878
3					
Total	395			856.3	5687

Tracking No.: 178249

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:

- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:

- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:

- with the appropriate Commission district office

Filling out Form L-1:

- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:

- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: ZARVONA ENERGY LLC	District No. 08	Completion Date: 08/13/2017
Field Name EMMA (MISSISSIPPIAN)	Drilling Permit No. 826299	
Lease Name ULS 5-9 UNIT	Lease/ID No. 49290	Well No. 6
County ANDREWS	API No. 42- 003-47556	

SECTION II. LOG STATUS (Complete either A or B)

A. BASIC ELECTRIC LOG NOT RUN

B. BASIC ELECTRIC LOG RUN. (Select one)

- 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
- 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
- 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
- 4. Log attached to (select one):

(a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential.

(b) Form P-7, Application for Discovery Allowable and New Field Designation.

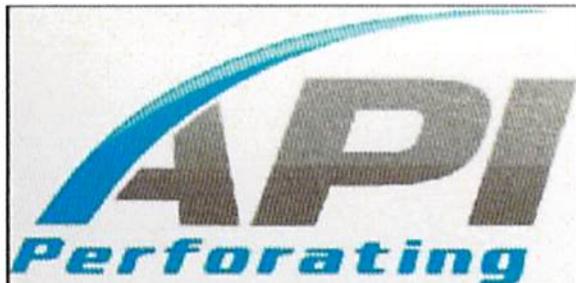
(c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Alvaro Rosales _____ Signature ZARVONA ENERGY LLC _____ Name (print)	Regulatory Manager _____ Title (713) 600-0600 _____ Phone 08/18/2017 _____ Date
---	---

-FOR RAILROAD COMMISSION USE ONLY-



ACOUSTIC CEMENT BOND GAMMA RAY COLLAR LOG

Company ZARVONA ENERGY Well ULS 5-9 UNIT #6 Field EMMA (MISSISSIPPIAN) County ANDREWS State TEXAS	Company	ZARVONA ENERGY		
	Well	ULS 5-9 UNIT #6		
	Field	EMMA (MISSISSIPPIAN)		
	County	ANDREWS	State	TEXAS
Location:		API # : 42-003-47556		Other Services
		467' FSL AND 467' FEL SEC. 4, BLK. 5 SURVEY UNIVERSITY LANDS SEC TWP RGE		
Permanent Datum		GROUND LEVEL	Elevation	3030'
Log Measured From		KELLY BUSHING (17FT)		
Drilling Measured From		KELLY BUSHING		
		Elevation		
			K.B.	3047 FT
			D.F.	3046 FT
			G.L.	3030 FT

Date	AUGUST 1 2017
Run Number	ONE
Depth Driller	12830 FT
Depth Logger	12800 FT
Bottom Logged Interval	12500 FT
Top Log Interval	10000 FT
Open Hole Size	9.625
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	NA
Estimated Cement Top	NA
Time Well Ready	5:00 PM
Time Logger on Bottom	6:00 PM
Equipment Number	127
Location	TYE
Recorded By	CHRIS JIMENEZ
Witnessed By	DON WELLS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record		Size	Wgt/Ft	Top	Bottom		
Surface String							
Prot. String							
Production String		7"	29#				
Liner							

**CERTIFICATE OF COMPLIANCE
 AND TRANSPORTATION AUTHORITY**

This facsimile P-4 was generated electronically from data submitted to the RRC.
 A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 178249

1. Field name exactly as shown on proration schedule EMMA (MISSISSIPPIAN)	2. Lease name as shown on proration schedule ULS 5-9 UNIT			
3. Current operator name exactly as shown on P-5 Organization Report ZARVONA ENERGY LLC	4. Operator P-5 no. 950523	5. Oil Lse/Gas ID no 49290	6. County ANDREWS	7. RRC district 08
8. Operator address including city, state, and zip code 1010 LAMAR ST SUITE 500 HOUSTON, TX 77002-6334	9. Well no(s) (see instruction E) 6			
10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)			11. Effective Date 08/13/2017	

12. Purpose of Filing. (Complete section a or b below.) (See instructions B and G)

a. Change of: operator oil or condensate gatherer gas gatherer gas purchaser gas purchaser system code

field name from _____

lease name from _____

--- **OR** ---

b. New RRC Number for: oil lease gas well **Due to:** new completion or recompletion reclass oil to gas reclass gas to oil

other well (specify) _____ consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). (See instruction G).

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left <i>(Attach an additional sheet in same format if more space is needed)</i>	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	DCP MIDSTREAM, LP(195918)	0001	100.0	

14. Authorized OIL or CONDENSATE Gatherer(s). (See instruction G).

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First <i>(Attach an additional sheet in same format if more space is needed)</i>	Percent of Take
ENTERPRISE CRUDE OIL LLC(253117)	100.0

RRC USE ONLY: Reviewer's initials: _____ Approval date: _____

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator _____ Name (print) _____ Title _____	Signature _____ <input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator (see instruction G) _____ Date _____ Phone with area code _____
---	---

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

ZARVONA ENERGY LLC _____ Name (print) Regulatory Manager _____ Title arosales@zarvonaenergy.com _____ E-mail Address (optional)	Alvaro Rosales _____ Signature <input checked="" type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator (see instruction G) _____ Date 08/24/2017 (713) 600-0600 _____ Phone with area code
---	---

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued:	17 May 2017	GAU Number:	172261
Attention:	ZARVONA ENERGY LLC 1010 LAMAR ST SUITE 500 HOUSTON, TX 77002	API Number:	00347556
Operator No.:	950523	County:	ANDREWS
		Lease Name:	ULS 5-9 UNIT
		Lease Number:	
		Well Number:	6
		Total Vertical Depth:	13500
		Latitude:	32.494184
		Longitude:	-102.366169
		Datum:	NAD27

Purpose: New Drill
Location: Survey-UL; Block-5; Section-4

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to a depth of 300 feet, and the zone from 1200 to 1725 feet must be protected.

This recommendation is applicable for all wells drilled in this Section 4.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 05/15/2017. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov
Rev. 02/2014

BLOCK A-19
PUBLIC SCHOOL LAND SURVEY

12 13
05 04 Zarvona Energy LLC 04 03

BLOCK 5
UNIVERSITY LANDS SURVEY
ANDREWS COUNTY, TEXAS



05 04 A-U108 640 Acres - Called - "ULS 5-9 Unit"
08 09

Gr. Elev.: 3030' ^{#6} - 467'

Multi-Shot Bottom Hole Loc. 42.33' @ 357.22' Azm of Surface Location.
MD 5300.00'
TVD 5299.31'
North 42.28'
West 2.05'

	State Plane Coordinates		Geodetic (D.M.S.)		Geodetic (D.D.)	
Surface Location	X = 500,180.55	Y = 335,795.34	Lat = 32°29'39.06" N	Long = 102°21'58.21" W	Lat = 32.49418355° N	Long = 102.36618943° W

The ULS 5-9 Unit #6 is located approximately 16 miles Northeast of Andrews, Texas



Legend

- Denotes Proposed Well Bore
- Denotes Unit Boundary
- Denotes Tract Line
- Denotes Proposed Well Location
- Denotes Proposed Penetration/ Take Points
- Denotes Proposed Bottom Hole Location

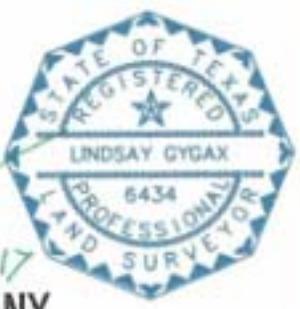
NOTE:

- 1) Plane Coordinates shown hereon are Lambert Grid and Conform to the "Texas Coordinate System", Texas North Central Zone, North American Datum of 1927, unless otherwise noted. Scale factor is 1.000217947.
- 2) Geodetic Coordinate shown hereon references the North American Datum of 1927, unless otherwise noted.
- 3) This plat is provided only for filing purposes with the Texas Railroad Commission and should not be construed as a boundary survey.

CERTIFICATION:

I hereby certify that this plat was made from notes taken in the field in a bona fide survey made under my supervision.

Lindsay Gygax Texas R.P.L.S. No. 6434



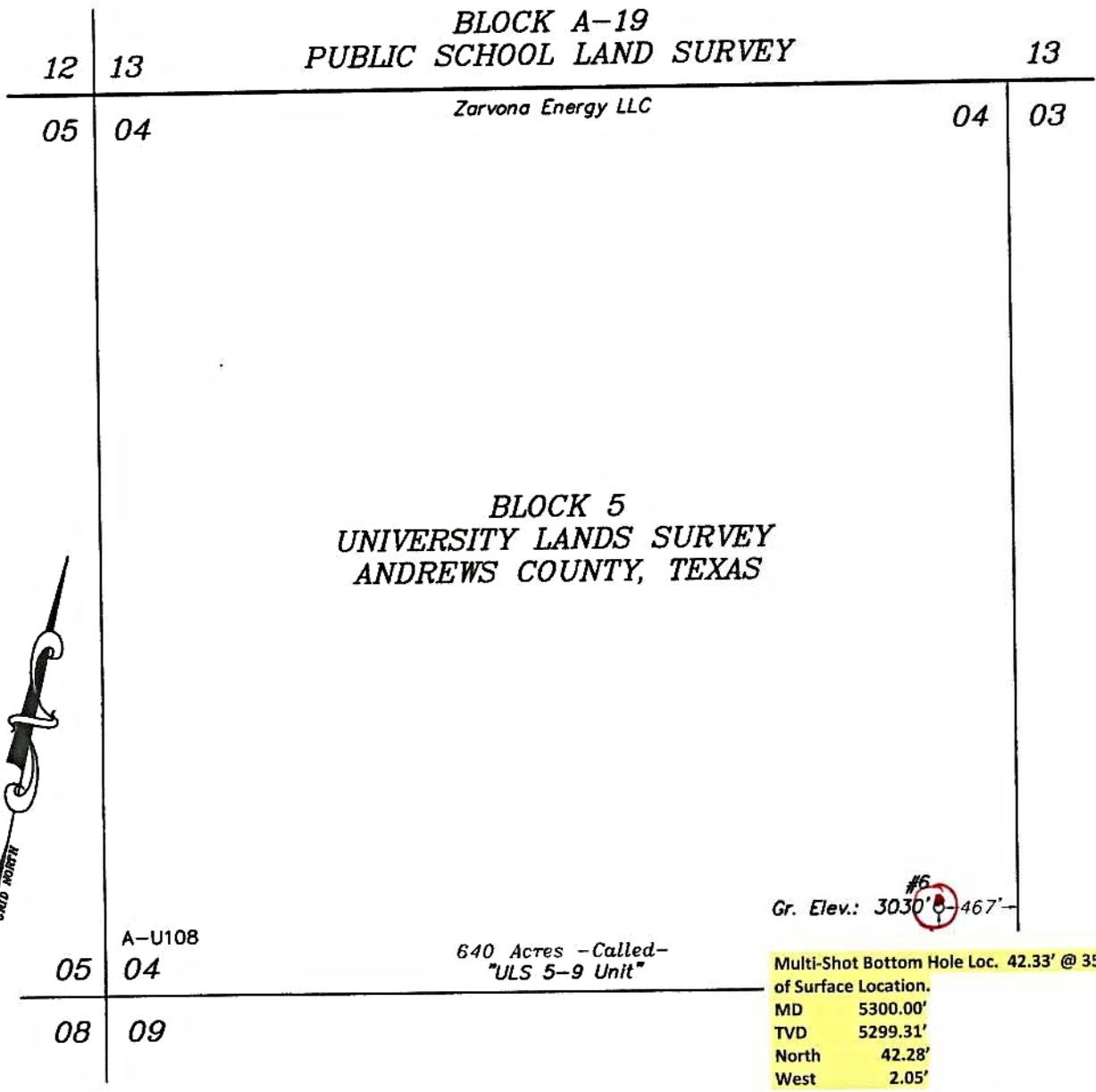
WEST COMPANY
Land Surveyors & Civil Engineers
110 W. Louisiana Ave., Suite 110, Midland, Texas 79701
(432) 687-0888 - FAX (432) 687-0888
P&M Registration Number: 100682-00

ZARVONA ENERGY LLC

Location of the
ULS 5-9 UNIT #6
467' FSL & 467' FEL
Section 4, Block 5
University Lands Survey,
Andrews County, Texas

Scale: 1" = 1000'	W.O.: 2017-0303
Surveyed: 04/28/2017	Drawn By: SC
File: J:\2017\2017-0303\2017-0303 The ULS 5-9 Unit #6.dwg	

BLOCK A-19
PUBLIC SCHOOL LAND SURVEY



BLOCK 5
UNIVERSITY LANDS SURVEY
ANDREWS COUNTY, TEXAS

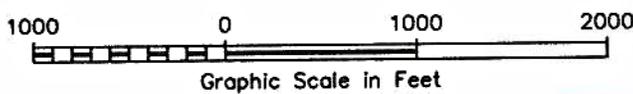


Gr. Elev.: 3030'-^{#6}467'-

Multi-Shot Bottom Hole Loc. 42.33' @ 357.22° Azm of Surface Location.
 MD 5300.00'
 TVD 5299.31'
 North 42.28'
 West 2.05'

Surface Location	State Plane Coordinate		Geodetic (D.M.S.)		Geodetic (D.D.)	
	X = 500,180.55	Y = 335,795.34	Lat = 32°29'39.06" N	Long = 102°21'58.21" W	Lat = 32.49418355° N	Long = 102.36616943° W

The ULS 5-9 Unit #6 is located approximately 16 miles Northeast of Andrews, Texas

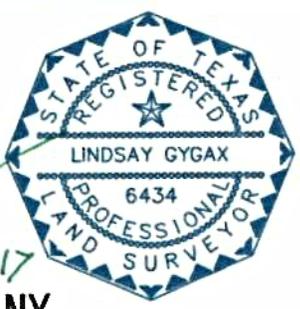


- Legend**
- Denotes Proposed Well Bore
 - Denotes Unit Boundary
 - Denotes Tract Line
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 - Denotes Proposed Bottom Hole Location

NOTE:
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CERTIFICATION:
 I hereby certify that this plat was made from notes taken in the field in a bona fide survey made under my supervision.

Lindsay Gygax Texas R.P.L.S. No. 6434



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 Land Surveyors ■ Civil Engineers
 110 W. Louisiana Ave., Suite 110, Midland, Texas 79701
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 FIRM Registration Number: 100682-00

ZARVONA ENERGY LLC

Location of the
ULS 5-9 UNIT #6
 467' FSL & 467' FEL
 Section 4, Block 5
 University Lands Survey,
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Surveyed: 04/28/2017	Drawn By: SC
File: J:\2017\2017-0303\2017-0303 The ULS 5-9 Unit #6.dwg	